

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	25	(dipole same \$4speak\$3) same (outside or top)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 12:36
L2	42	(dipole same \$4speak\$3) same (outside or top)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 12:39
L3	2	(dipole with \$4speak\$3) same (non-directional or nondirectional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 12:43
L4	233	(dipole with \$4speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 12:57
L5	1	("4961226").PN.	USPAT	OR	OFF	2006/02/22 12:57
S1	21	(dipole) same (acoustic near radiation)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:40
S2	709	(dipole) same ("90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:40
S3	95	(dipole) same ("90") same radiation	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:42
S4	41	(dipole) same ("90") and radiation and speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:42
S5	3	(381/89,86,80,82,302,342,387,389)".ccls.and" (radiation same "90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:54
S6	2	((("5870484") or ("4460061"))).PN.	USPAT; USOCR	OR	OFF	2004/06/27 14:54
S7	164	(700/94).CCLS.	USPAT; USOCR	OR	OFF	2004/05/12 16:02
S8	164	(700/94).CCLS.	USPAT; USOCR	OR	OFF	2004/06/23 10:56
S9	0	("(concavenear2reflect\$2)near7soundnear2source").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/05/12 16:03
S10	1	(concave near2 reflect\$2) near7 sound near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/05/12 16:03
S11	23	(concave near2 reflect\$2) and (sound near2 source)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/05/12 16:04

## EAST Search History

S12	4	(concave near2 reflect\$2) same (sound near2 source)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/05/12 16:06
S13	21	dipole near2 sound near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:31
S14	15	(vehicle near2 sound near2 amplifi\$9)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:00
S15	1	(dipole near2 sound near2 source) same passenge\$2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 10:59
S16	1	(dipole near2 sound near2 source) and passenge\$2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:02
S17	8	(dipole near2 sound near2 source) same driver	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:03
S18	1	(dipole near2 sound near2 source) same (signal near2 process\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:04
S19	10	(dipole near2 sound near2 source) and (signal near2 process\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:09
S20	1	matsushita.AS. and dipole near2 source and vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:44
S21	0	matsushita.AS. and dipole near2 source and car	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:10
S22	0	kakuhari.in. and dipole near2 source and car	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:49
S23	0	kakuhari.in. and dipole near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:10
S24	1	terai.in. and dipole near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:10
S25	1	kakubari.in. and dipole near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:10
S26	499	(700/94).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/23 10:11

## EAST Search History

S27	0	(700/94).ccls. and dipole near2 source same passenger	USPAT	OR	OFF	2004/06/23 10:11
S28	0	(700/94).ccls. and dipole near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:11
S29	0	("(dipolenear2sound)same(non-direction\$2)").PN.	USPAT; USOCR	OR	OFF	2004/06/23 10:56
S30	0	(dipole near2 sound) same (non-direction\$2)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:56
S31	0	(dipole near2 sound) same (non near2 direction\$2)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 10:57
S32	1	(dipole near2 sound) and (non near2 direction\$2)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:02
S33	5	("3104729"   "3627948"   "3754618"   "4596034"   "5764777").PN.	USPAT	OR	OFF	2004/06/23 10:59
S34	1	"5870484".URPN.	USPAT	OR	OFF	2004/06/23 11:00
S35	6	("5073945"   "5212732"   "5233664"   "5828763"   "5870484"   "6031921").PN.	USPAT	OR	OFF	2004/06/23 11:01
S36	378	(381/300).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/23 11:03
S37	7	(381/300).ccls. and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:04
S38	5	("381"/\$).ccls. and dipole same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:06
S39	2	("381"/\$).ccls. and dipole and vehicle and (non near2 directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:16
S40	2	("381"/\$).ccls. and dipole same (non near2 directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:31
S41	3	("381"/\$).ccls. and (dipole near2 speak\$3) same bass	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:34
S42	2	"5212732".URPN.	USPAT	OR	OFF	2004/06/23 11:34
S43	1	("381"/\$).ccls. and (dipole near2 speak\$3) same subwoofer	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:35

## EAST Search History

S44	4	("381"/\$).ccls. and (dipole near2 speak\$3) and subwoofer	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 11:54
S45	808	(381/89,86).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/24 13:07
S46	1	"5546465".PN.	USPAT	OR	OFF	2004/06/23 12:01
S47	237	(381/387,389).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/23 12:06
S48	152	(381/302,342).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/23 12:06
S49	213	(381/80,82).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/23 12:06
S50	0	(381/89,86,80,82,302,342,387,389).ccls. and dipole same (non adj directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 12:07
S51	0	(381/89,86,80,82,302,342,387,389).ccls. and dipole same (non-directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 12:08
S52	1	(381/89,86,80,82,302,342,387,389).ccls. and dipole and (non-directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 12:08
S53	1	(381/89,86,80,82,302,342,387,389).ccls. and dipole and (non near2 directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 12:08
S54	16	(381/89,86,80,82,302,342,387,389).ccls. and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 12:08
S55	4	(381/89,86,80,82,302,342,387,389).ccls. and dipole same (omnidirectional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 12:12
S56	5	(381/89,86,80,82,302,342,387,389).ccls. and dipole and (omnidirectional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:11
S57	0	(381/89,86,80,82,302,342,387,389).ccls. and DSP near2 control\$4 near2 phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:29

## EAST Search History

S58	0	(381/89,86,80,82,302,342,387, 389).ccls. and (signal near2 process\$4) near2 control\$4 near2 phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:30
S59	5	(381/89,86,80,82,302,342,387, 389).ccls. and (signal near2 process\$4) near2 phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:30
S60	0	(381/89,86,80,82,302,342,387, 389).ccls. and (DSP) near2 phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:19
S61	0	(DSP) near2 phase near3 speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:31
S62	1	(DSP) near3 phase near3 speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:32
S63	7	(DSP) same phase near3 speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:35
S64	0	(DSP) and (hase near3 speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:35
S65	105	(DSP) and (phase near3 speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:39
S66	11	(DSP) and (radiation near2 detect\$4) and error and adder and calculat\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:42
S67	1	(DSP) same (radiation near2 detect\$4) and speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:40
S68	1	(DSP) same (radiation near2 detect\$4) and speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:41
S69	0	(DSP) same (radiation near2 sound near2 detect\$4)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:41
S70	34	(radiation near2 sound near2 detect\$4)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/23 17:41
S71	19	(381/89,86,80,82,302,342,387, 389).ccls. and (invert\$2 near2 phase)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 16:43
S72	4	("4790408"   "5109423"   "6038326"   "6118883").PN.	USPAT	OR	OFF	2004/06/24 09:16

## EAST Search History

S73	45	("381"/\$.ccls. and dipole and (omnidirectional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 09:17
S74	0	("(signalnear2process\$3)same(microphone)sameerror").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/24 09:46
S75	369	(signal near2 process\$3) same (microphone) same error	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:39
S76	51	(signal near2 process\$3) same (microphone) same error same add\$2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 10:09
S77	34	(signal near2 process\$3) same (microphone) same error same add\$2 and speak\$2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 09:56
S78	9	"5377276".URPN.	USPAT	OR	OFF	2004/06/24 09:55
S79	1	"5117401".PN.	USPAT	OR	OFF	2004/06/24 09:56
S80	0	(dipole) same (control near2 speak\$2)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 09:57
S81	1513	(dipole) same (control)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 09:57
S82	17	(dipole) same (control) same speak\$2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:12
S83	34	(signal near2 process\$3) same (microphone) same error same coefficient	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 10:18
S84	106	(381/71.4).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 16:03
S85	791	(381/182,186).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/24 11:01
S86	19	"3393764".URPN.	USPAT	OR	OFF	2004/06/24 11:15
S87	8	"3590942".URPN.	USPAT	OR	OFF	2004/06/24 11:17
S88	19	"4472605".URPN.	USPAT	OR	OFF	2004/06/24 11:21
S89	6	("2297972"   "2550359"   "2832843"   "2969848"   "3477540"   "3842203").PN.	USPAT	OR	OFF	2004/06/24 11:25

## EAST Search History

S90	1	(signal near2 process\$3) same (steer\$3 near3 speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:39
S91	104	steer\$3 near3 speak\$3	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:42
S92	29	(DSP) same (microphone) same error same phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:46
S93	17	(DSP) same (direction\$2 near2 characteris\$5)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:47
S94	182	(DSP)and (direction\$2 near2 characteris\$5)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:47
S95	182	(DSP) and (direction\$2 near2 characteris\$5)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 11:47
S96	180	(signal near2 process\$3) same (direction\$2 near2 characteris\$5)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 12:45
S97	0	(on adj2 vehicle) near2 amplif\$9	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 12:45
S98	16	(on-vehicle) near2 amplif\$9	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 12:45
S99	235	matsushita.AS. and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 12:47
S10 0	15	matsushita.AS. and dipole and sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/24 12:55
S10 1	20	"5073945".URPN.	USPAT	OR	OFF	2004/06/24 12:47
S10 2	1	("5870484").PN.	USPAT; USOCR	OR	OFF	2004/06/24 12:55
S10 3	5	("3104729"   "3627948"   "3754618"   "4596034"   "5764777").PN.	USPAT	OR	OFF	2004/06/24 12:55
S10 4	1	"5870484".URPN.	USPAT	OR	OFF	2004/06/24 12:57
S10 5	6	("5073945"   "5212732"   "5233664"   "5828763"   "5870484"   "6031921").PN.	USPAT	OR	OFF	2004/06/24 12:58

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S10 6	19	"5233664".URPN.	USPAT	OR	OFF	2004/06/24 12:59
S10 7	10	("4497023"   "4597100"   "4622689"   "4685134"   "4736333"   "4933768"   "5095798"   "5233664"   "5386082"   "5459790").PN.	USPAT	OR	OFF	2004/06/24 14:10
S10 8	0	"5793876".URPN.	USPAT	OR	OFF	2004/06/24 13:05
S10 9	1	"5812675".URPN.	USPAT	OR	OFF	2004/06/24 13:05
S11 0	28	("4236039"   "4497023"   "4685134"   "4736333"   "4818938"   "4893256"   "4905094"   "4933768"   "5007707"   "5052685"   "5065345"   "5095798"   "5109482"   "5111409"   "5119474"   "5119479"   "5233664"   "5265165"   "5303218"   "5313524"   "5386082"   "5430805"   "5440638"   "5467401"   "5500900"   "5517570"   "5590207"   "5596647").PN.	USPAT	OR	OFF	2004/06/24 13:05
S11 1	138	(381/89).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/24 13:07
S11 2	16	("1568589"   "2790164"   "4845759"   "4926487"   "4930596"   "5097923"   "5140641"   "5432857"   "5452025"   "5524062"   "5604337"   "5606297"   "5675131"   "5710394"   "5815589"   "5825900").PN.	USPAT	OR	OFF	2004/06/24 13:17
S11 3	19	"5233664".URPN.	USPAT	OR	OFF	2004/06/24 14:03
S11 4	228	(381/335,336).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 15:37
S11 5	15	"3637938".URPN.	USPAT	OR	OFF	2004/06/24 14:15
S11 6	7	"4418243".URPN.	USPAT	OR	OFF	2004/06/24 14:17
S11 7	11	"5105906".URPN.	USPAT	OR	OFF	2004/06/24 14:19



## EAST Search History

S11 8	11	"4100371".URPN.	USPAT	OR	OFF	2004/06/25 10:27
S11 9	1	("5233664").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 09:57
S12 0	126	(381/97).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 10:12
S12 1	6	"5187333".URPN.	USPAT	OR	OFF	2004/06/25 10:20
S12 2	4	("3944757"   "4100371"   "4790408"   "4930596").PN.	USPAT	OR	OFF	2004/06/25 10:20
S12 3	0	dipole near2 US-4251687-A.DID.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 10:28
S12 4	3	dipole near2 ninety	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 10:28
S12 5	0	dipole same speak\$2 same ninety	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 10:28
S12 6	0	dipole same speak\$2 same US-4251687-A.DID.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 10:28
S12 7	0	dipole same speak\$2 same US-4251687-A.DID.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 10:29
S12 8	4	dipole same speak\$2 same "90"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 16:28
S12 9	1	("5377276").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 15:37
S13 0	9	"5377276".URPN.	USPAT	OR	OFF	2004/06/25 15:37
S13 1	9	"5377276".URPN.	USPAT	OR	OFF	2004/06/25 15:55
S13 2	7	("5278780"   "5337366"   "5377276"   "5388160"   "5586189"   "5586190"   "5710822").PN.	USPAT	OR	OFF	2004/06/25 15:57

## EAST Search History

S13 3	168	(381/71.1).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2004/06/25 16:03
S13 4	11	"4790408".URPN.	USPAT	OR	OFF	2004/06/25 16:17
S13 5	11	"4790408".URPN.	USPAT	OR	OFF	2004/06/25 16:18
S13 6	86	dipole and (phase near2 differen\$3 near3 "90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 16:29
S13 7	21	dipole same (phase near2 differen\$3 near3 "90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 16:29
S13 8	265	(381/89,86,80,82,302,342,387, 389)".ccls.and" ("90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 14:57
S13 9	17	(381/89,86,80,82,302,342,387, 389)".ccls.and" (phase same "90")	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:47
S14 0	15	dipole and (point near2 sound near2 source)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:00
S14 1	0	dipole and (point near2 sound near2 source) and "1/2"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:00
S14 2	24	(point near2 sound near2 source) and "1/2"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:40
S14 3	1	"4460061".URPN.	USPAT	OR	OFF	2004/06/25 17:01
S14 4	383	(phase near2 differen\$4) near8 "90" and (radiation)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:42
S14 5	32	(phase near2 differen\$4) near8 "90" and (radiation) and sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:44
S14 6	0	(acoustic near2 radiation near2 plane) near8 "90"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:44
S14 7	0	(acoustic) same (radiation near2 plane) near8 "90"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:45
S14 8	46	(acoustic) same (radiation near2 plane)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:45

## EAST Search History

S14 9	8	(acoustic) same (radiation near2 plane) same phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/27 14:35
S15 0	13	"4836328".URPN.	USPAT	OR	OFF	2004/06/25 17:46
S15 1	30	(acoustic) same (radiation near2 plane) and phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2004/06/25 17:48
S15 2	5	("3608665"   "3715008"   "3759345"   "5253301"   "5526456").PN.	USPAT	OR	OFF	2004/06/25 17:51
S15 3	3	((("4460061") or ("5870484") or ("3781475"))).PN.	USPAT	OR	OFF	2005/02/10 14:03
S15 4	0	dipole with sound with outside with vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:11
S15 5	0	dipole with sound same outside with vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:12
S15 6	11	on-vehicle with sound with outside	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:24
S15 7	18	on-vehicle same sound same outside	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:27
S15 8	1	vehicle with outdoor with sound with system	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:28
S15 9	3	vehicle same outdoor with sound with system	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:29
S16 0	1	vehicle same outdoor with sound with (device or amplif\$9)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:30
S16 1	2	vehicle same outdoor with sound with (device or amplif\$9 or \$4speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:30
S16 2	0	dipole near2 sound near2 source same (outside)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:31
S16 3	0	dipole near2 sound near2 source and (outside or on) same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:19
S16 4	1	dipole near2 sound near2 source same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:32

## EAST Search History

S16 5	1	dipole near2 sound near2 source same vehicle	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/10 14:32
S16 6	3	matsushita.AS. and dipole near2 source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:35
S16 7	247	matsushita.AS. and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:43
S16 8	10	matsushita.AS. and dipole same sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:37
S16 9	10	dipole same sound same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:38
S17 0	11	sound with amplif\$9 with outside same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:40
S17 1	0	sound with amplif\$9 with on same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:40
S17 2	0	sound with amplif\$9 with on	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:40
S17 3	9	matsushita.AS. and dipole same (outside or on)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:46
S17 4	339	dipole same (\$4speak\$3)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:47
S17 5	12	dipole same (\$4speak\$3) same (vehicle or car or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:48
S17 6	0	kakuhari.in. and dipole	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/10 14:49
S17 7	2	kakubari.in. and dipole	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/10 14:49

## EAST Search History

S17 8	2	terai.in. and dipole	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/10 14:49
S17 9	19	dipole with sound with source and (outside or on)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 14:52
S18 0	49	dipole with sound with source	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:09
S18 1	0	dipole with sound same exterior same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:51
S18 2	0	dipole same sound same exterior same vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:10
S18 3	17	dipole same sound same (outside or exterior or on)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:10
S18 4	32	(dipole) same amplif\$9 same (vehicle or car or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:13
S18 5	107	dipole near3 amplif\$9	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 15:19
S18 6	17	(381/89,86,80,82,302,342,387, 389).ccls. and (dipole)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:16
S18 7	731	(381/77-79,82).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 16:20
S18 8	781	mcChesney	US-PGPUB; USPAT	OR	OFF	2005/02/10 16:15
S18 9	55	mcChesney with elizabeth	US-PGPUB; USPAT	OR	OFF	2005/02/10 16:15
S19 0	4	("4974759"   "5094316"   "5608806"   "5979590").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/10 16:16
S19 1	4	(381/77-79,82).ccls. and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/10 16:21
S19 2	152	(381/77-79,82).ccls. and (vehicle or car or automobile or bus or train)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/11 08:47

## EAST Search History

S19 3	30	(381/82).cccls. and (vehicle or car or automobile or bus or train)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/11 08:48
S19 4	133	(public adj2 address) same (vehicle or car or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/11 08:48
S19 5	140	(public adj2 address\$3) same (vehicle or car or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/11 08:53
S19 6	2	((("3271735") or ("3579184")).PN.	USPAT	OR	OFF	2005/02/11 09:12
S19 7	1	("5870484").PN.	USPAT	OR	OFF	2005/09/08 10:26
S19 8	1	("3781475").PN.	USPAT	OR	OFF	2005/02/21 15:58
S19 9	22	dipole same sound same wall	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:43
S20 0	4	("3781475").URPN.	USPAT	OR	OFF	2005/02/21 12:47
S20 1	4	dipole with asymmetrical with pattern	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:52
S20 2	11	dipole same asymmetrical with pattern	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:52
S20 3	0	dipole same sound same asymmetrical with pattern	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:52
S20 4	5	dipole same sound same asymmetrical	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:55
S20 5	234	dipole same asymmetrical	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:56
S20 6	2	dipole same asymmetrical same pattern same phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 12:56
S20 7	28	dipole same asymmetrical same pattern	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:00
S20 8	1133	dipole same radiation same pattern	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:00

## EAST Search History

S20 9	14	dipole same radiation same pattern same speaker	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:00
S21 0	0	("381"/\$).ccls. and (dipole) same null near3 zero	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:17
S21 1	24	("381"/\$).ccls. and (dipole) same null	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 13:17
S21 2	6	(381/89,86,80,82,302,342,387, 389).ccls. and dipole same (cancel\$8)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 15:12
S21 3	57	("381"/\$).ccls. and dipole same (cancel\$8)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 15:12
S21 4	30	("381"/\$).ccls. and dipole same (cancel\$8) same \$4speak\$4	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 15:24
S21 5	9	("381"/\$).ccls. and forward same backward same (cancel\$8) same \$4speak\$4	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 09:29
S21 6	21	("5073945").URPN.	USPAT	OR	OFF	2005/02/21 15:35
S21 7	6	("4875546"   "5073945"   "5537479"   "5561717"   "5790679"   "6160897").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/21 15:37
S21 8	4	("5561717").URPN.	USPAT	OR	OFF	2005/02/21 15:40
S21 9	4	("5815589").URPN.	USPAT	OR	OFF	2005/02/21 15:44
S22 0	4	("3781475").URPN.	USPAT	OR	OFF	2005/02/21 15:56
S22 1	153	(381/387).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 15:59
S22 2	121	(84/705).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/21 15:59
S22 3	4	("2203715").URPN.	USPAT	OR	OFF	2005/02/21 16:06
S22 4	0	forward same backward same (cancel\$8) same \$4speak\$4 same "90"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 09:22
S22 5	0	dipole same (cancel\$8) same \$4speak\$4 same "90"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 09:22

## EAST Search History

S22 6	143	(381/89).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 10:02
S22 7	48	(381/89).ccls. and cancel\$8	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2005/02/22 10:55
S22 8	1	("20020101360").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/22 11:26
S22 9	1	("5887068").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/22 11:26
S23 0	17	("3016424"   "3814857"   "4862508"   "4884655"   "4940108"   "4942939"   "4998283"   "5000286"   "5033577"   "5170436"   "5187333"   "5216210"   "5222145"   "5274709"   "5321756"   "5374124").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/02/22 11:26
S23 1	71	(381/89,86,80,82,302,342,387, 389).ccls. and control\$4 with phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:56
S23 2	29	(381/89,86,80,82,302,342,387, 389).ccls. and control\$4 near2 phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/02/22 12:35
S23 3	1	("3781475").PN.	USPAT	OR	OFF	2005/02/22 12:35
S23 4	18	kehry.in.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/05/15 18:18
S23 5	1	EP-239914-\$.did.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/05/15 18:19
S23 6	1	("3781475").PN.	USPAT	OR	OFF	2005/09/07 17:53
S23 7	12	(381/89,86,80,82,302,342,387, 389).ccls. and dipole same phase	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:58
S23 8	0	(381/89,86,80,82,302,342,387, 389).ccls. and dipole same (non-directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:58
S23 9	7	(381/89,86,80,82,302,342,387, 389).ccls. and dipole same (directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:59
S24 0	1	(381/89,86,80,82,302,342,387, 389).ccls. and dipole same (directional) and vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:59



## EAST Search History

S24 1	158	dipole same (directional) and vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 17:59
S24 2	3	dipole same (directional) same \$4speaker and vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 18:06
S24 3	0	dipole same (invert\$2 adj2 phase) same \$4speaker and vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 18:13
S24 4	132	vehicle same (non-directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 18:13
S24 5	8	vehicle same (non-directional) same sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/09/07 18:14
S24 6	1	("4460061").PN.	USPAT	OR	OFF	2005/09/08 10:27
S24 7	0	(dipole near2 sound near2 source) same (outside with vehicle)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:00
S24 8	0	(dipole with \$4speaker) same (outside with vehicle)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:02
S24 9	1	("4594729").PN.	USPAT	OR	OFF	2006/01/17 11:00
S25 0	4	(dipole with \$4speaker) and (outside with vehicle)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:03
S25 1	12	(dipole with \$4speaker) same outside	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:10
S25 2	226	(\$4speaker) with (outside or top) with vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:04
S25 3	31	(\$4speaker) near3 (outside or top) near2 vehicle	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:04
S25 4	6	(dipole with \$4speaker) same (vehicle or car or automobile or ambulance)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:13
S25 5	10	(dipole same \$4speaker) same (vehicle or car or automobile or ambulance)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:13
S25 6	119	(exterior with \$4speaker) same (vehicle or car or automobile or ambulance)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:13

## EAST Search History

S25 7	0	(exterior with \$4speaker) same (vehicle or car or automobile or ambulance) same dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:13
S25 8	0	(exterior with \$4speaker) same (vehicle or car or automobile or ambulance) and dipole	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:13
S25 9	4	(dipole with \$4speakers) same (vehicle or car or automobile or ambulance)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:14
S26 0	0	(dipole with \$4speakers) near2 (top or outside or exterior)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:14
S26 1	0	(dipole with \$4speakers) near2 (tmount\$2 with outside)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:14
S26 2	0	(dipole with \$4speakers) near2 (mount\$2 with outside)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/17 11:18
S26 3	2	((("4982436") or ("5397866")).PN.	USPAT	OR	OFF	2006/01/17 11:19
S26 4	0	JP-822394-\$.did.	EPO; JPO; DERWENT	OR	OFF	2006/01/17 11:19
S26 5	0	JP-0822394-\$.did.	EPO; JPO; DERWENT	OR	OFF	2006/01/17 11:19
S26 6	2	JP-08228394-\$.did.	EPO; JPO; DERWENT	OR	OFF	2006/01/17 11:20
S26 7	0	(dipole with \$4speak\$3) with (outside or top) with (vehicle or car or truck or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 11:17
S26 8	0	(dipole with \$4speak\$3) same (outside or top) with (vehicle or car or truck or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 15:46
S26 9	8	(dipole with \$4speak\$3) and (outside or top) with (vehicle or car or truck or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 15:49
S27 0	5	("3968435").URPN.	USPAT	OR	OFF	2006/01/24 15:48
S27 1	11	(dipole with \$4speak\$3) same (exterior or outside) same sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 16:02
S27 2	11	(dipole with (\$4speak\$3 or siren or transducer)) same (exterior or outside) same sound	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 16:03
S27 3	24	(dipole with (\$4speak\$3 or siren or transducer)) same (exterior or outside)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 16:52

## EAST Search History

S27 4	2	(dipole with (\$4speak\$3 or siren or transducer)) same (non-directional)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/01/24 16:52
S27 5	2	((("4594729") or ("4460061")).PN.	USPAT	OR	OFF	2006/02/22 10:30
S27 6	0	(dipole with \$4speak\$3) same (outside or top) with (vehicle or car or truck or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 11:20
S27 7	6	(dipole same \$4speak\$3) same (outside or top) same (vehicle or car or truck or automobile)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/02/22 11:56